2018 Current Fiscal Year Report: Board on Coastal Engineering Research

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1. Department or Agency 2. Fiscal Year

Department of Defense 2018

3. Committee or Subcommittee 3b. GSA Committee No.

Board on Coastal Engineering Research 79

4. Is this New During Fiscal 5. Current 6. Expected Renewal 7. Expected Term

Year? Charter Date Date

No 03/01/2017 03/01/2019

8a. Was Terminated During 8b. Specific Termination 8c. Actual Term

FiscalYear? Authority Date

No

9. Agency Recommendation for Next10a. Legislation Req to 10b. Legislation

FiscalYear Terminate? Pending?

Continue No Not Applicable

11. Establishment Authority Statutory (Congress Created)

12. Specific Establishment 13. Effective 14. Committee 14c.

Authority Date Type Presidential?

33 U.S.C. 462-2 P.L. 88-172 11/07/1963 Continuing No

15. Description of Committee Special Emphasis Panel

16a. Total Number of No Reports for this

Reports FiscalYear

17a. Open 2 17b. Closed 0 17c. Partially Closed 0 Other Activities 0 17d. Total 2

Meetings and Dates

Purpose Start End

The purpose the meeting was to discuss Board meeting logistics, and review the running list of ongoing action items. The Board heard presentations on the following topics: R&D Technologies Supporting Hurricane Preparations, Response and Recovery- Rapid Storm Surge Forecast; U.S. Coastal Research Program: Storm Process and Impacts Workshop and During Nearshore Event Experiment; Update: Numerical Technology Modernization; Next Generation Coastal Guidance Document; Strategic Tech Transfer & Training; Coastal Processes R&D Needs, 94th CERB; Report on the Coastal Working Group Annual Meeting with Focus on R&D Needs; Flood and Navigation Coastal Asset Management Update; U.S. Coastal Research Program Update; U.S. Coastal Research Program: Dune Research; Wind Tunnel Test of How Plants Feedback on Dune Shape; and Dune Evolution on Storm through Decadal-

Time Scale along NC's Outer Banks. From these presentation 10 action items were drafted.

03/14/2018 - 03/15/2018

The meeting Theme was: Coupling Coastal Engineering Solutions with Social & Ecological Predications.

The meeting concept was: To identify Corps coastal research priorities related to the physical, biological, and chemical processes impacting human and ecosystem health as identified in the Future of Nearshore Processes Research paper. The Board continues to endorse the following: (1) coordinating and communicating within the Corps and among the Corps, its Federal partners, state and local governments, (2) using research and modeling from the Engineering Research and Development Center's Coastal and Hydraulics Laboratory and the Environmental Lab to inform adaptive decision 08/07/2018 - 08/09/2018 making; and, (3) improving risk communication. As always, the Board is interested in how it can be more effective for coastal engineering, the Corps, and the Nation. Updates were given on the 10 action items that were identified at the executive session in Duck, NC. Four more action items were added by the board for a total of 14 actions. The Board heard presentations from three panels: Challenges and Successes Managing Northeast Regional Coastal Systems, Coastal Research Supporting Social & Ecological Needs, State of Knowledge and Research Directions.

Number of Committee Meetings Listed: 2

	Current FY	Next FY
18a(1). Personnel Pmts to Non-Federal Members	\$27,000.00	\$25,000.00
18a(2). Personnel Pmts to Federal Members	\$0.00	\$0.00
18a(3). Personnel Pmts to Federal Staff	\$193,000.003	\$196,000.00
18a(4). Personnel Pmts to Non-Member Consultants	\$0.00	\$0.00
18b(1). Travel and Per Diem to Non-Federal Members	\$15,000.00	\$14,000.00
18b(2). Travel and Per Diem to Federal Members	\$12,000.00	\$13,000.00
18b(3). Travel and Per Diem to Federal Staff	\$17,000.00	\$14,000.00
18b(4). Travel and Per Diem to Non-member Consultants	\$0.00	\$0.00
18c. Other(rents, user charges, graphics, printing, mail, etc.)	\$82,000.00	\$82,000.00
18d. Total	\$346,000.003	\$344,000.00
19. Federal Staff Support Years (FTE)	2.00	2.00

20a. How does the Committee accomplish its purpose?

The Board on Coastal Engineering Research functions as an advisory board to the Chief of Engineers as provided by PL 88-172, dated 7 November 1963. The Board meets semiannually or at the call of the Designated Federal Officer to consider coastal engineering research needs of the U.S. Army Corps of Engineers (USACE). It provides broad policy guidance and review of plans for the conduct and application of Research and Development (R&D) in the field of coastal engineering. It recommends priorities of accomplishment of research projects in consonance with the needs of the coastal engineering field and the objectives of the Chief of Engineers. Board members are involved in ongoing initiatives such as Regional Sediment Management, Section 227 Shoreline Erosion Control Demonstration Study, Field Data Collection Programs, the National Shoreline Management Study, Shore Protection Project Performance Improvement, MORPHOS 3-D, and applications of R&D Technology to major Corps projects. From the past Board meetings, the Board recommended implementing the findings of our year-long effort that includes (1) a working definition of resilience that allows flexibility to be tailored to specific needs, (2) continued collaboration and peer-review through intentional engagement with other agencies and non-governmental

entities, (3) a research and development plan that fills gaps in our current knowledge and capabilities through the Civil Works R&D programs, (4) demonstrations co-led by ERDC -Districts – Centers of Expertise to further test methods we develop to quantify resilience for use in our risk-reduction designs, decisions and operations, as well as to aid in prioritizing R&D needs, ; and (5) develop guidance based on what we know today to inform the Corps and our stakeholders and refine the guidance over time as the research provides new knowledge and insight. The Board met in Duck, NC in March 2018, to discuss Board meeting logistics. Presentations were given on the following: R&D Technologies Supporting Hurricane Preparations, Response and Recovery-Rapid Storm Surge Forecast; U.S. Coastal Research Program: Storm Process and Impacts Workshop and During Nearshore Event Experiment; Update: Numerical Technology Modernization; Next Generation Coastal Guidance Document; Strategic Tech Transfer & Training; Coastal Processes R&D Needs, 94th CERB; Report on the Coastal Working Group Annual Meeting with Focus on R&D Needs; Flood and Navigation Coastal Asset Management Update; U.S. Coastal Research Program Update; U.S. Coastal Research Program: Dune Research; Wind Tunnel Test of How Plants Feedback on Dune Shape; and Dune Evolution on Storm through Decadal- Time Scale along NC's Outer Banks. Recommendations or action items were (1) Proceed with Pilot to develop the Next Generation Coastal Guidance Digital Document, (2) Develop Statements of Need for Carbonate Sediment research and to establish a West Coast Numerical Model Testbed, (3) Define and Categorize Natural and Nature-based Features to explain what NNBF covers, (4) Provide a 15 minute Primer on Civil Works RD&T Business Processes and the Research Area Review Group, (5) Organize Action Items by Function, (6) Review past CERB Recommendations, how the Civilian Members Influenced them, and the Impact of the Recommendation on the Corps, (7) Establish a Research Performance Metric of # of Publications / Annual Budget as a basic indicator of tech transfer through peer reviewed publications, (8) Seek to Present the Coastal Guidance Pilot at an upcoming EGM meeting, (9) Calculate benefits resulting from coastal projects impacted by 2017 hurricanes, (10) Evaluate the potential of using the National Defense Science and Engineering Graduate Fellowship as another vehicle to attract our future workforce. The 95th CERB meeting in Providence, RI on 7-9 August 2018. Theme was: Coupling Coastal Engineering Solutions with Social & Ecological Predications. The meeting concept was: To identify Corps coastal research priorities related to the physical, biological, and chemical processes impacting human and ecosystem health as identified in the Future of Nearshore Processes Research paper. The Board continues to endorse the following: (1) coordinating and communicating within the Corps and among the Corps, its Federal partners, state and local governments, (2) using research and modeling from the Engineering Research and Development Center's Coastal and Hydraulics Laboratory and the Environmental Lab to inform adaptive decision making; and, (3) improving risk

communication. As always, the Board is interested in how it can be more effective for coastal engineering, the Corps, and the Nation. Updates were given on the 10 action items that were identified at the executive session in Duck, NC. 4 more action items were added by the board for a total of 14 actions. The Board heard presentations from three panels: Challenges and Successes Managing Northeast Regional Coastal Systems, Coastal Research Supporting Social & Ecological Needs, State of Knowledge and Research Directions.

20b. How does the Committee balance its membership?

The three civilian members are prominent in the field of coastal engineering with broad experience in conducting and managing coastal engineering research programs. Their recommendations guide the coastal engineering effort of the Corps of Engineers. The four military members are Division Commanders and the Deputy Commanding General for Civil and Emergency Operations. Their views represent the research needs of the Corps and their respective Divisions because of their unique knowledge of the Corps missions.

20c. How frequent and relevant are the Committee Meetings?

The Board meets semi-annually, or at the call of the Designated Federal Officer. The membership on the BCER (the Deputy Commanding General for Civil and Emergency Operations, three Division Engineers, and three prominent civilian coastal engineers from the academic community and private industry) provides a unique blend of expertise and roles that allow for establishment of near- and long-term needs. The Board makeup provides effective liaison among Corps District and Division offices, Corps Laboratories involved in coastal engineering research, the academic community, and the private sector.

20d. Why can't the advice or information this committee provides be obtained elsewhere?

Federal statute (33 U.S.C. 462-2 P.L. 88-172) requires the Secretary of Defense to establish the committee.

20e. Why is it necessary to close and/or partially closed committee meetings?

Meetings are not closed to the public unless the DoD determines that items on the planned agenda meet the closed meeting provisions of 5 U.S.C. § 552b(c). Pursuant to DoD policy closed meetings can only be authorized by the DoD Sponsor, the Secretary of the Army, and only after consultation with the Office of General Counsel for the Department of the Army.

21. Remarks

The Proceedings and minutes are one in the same. The committee does not publish separate reports; the recommendations to the decision maker are contained in the meeting minutes. The meeting minutes for 3/14/2018 thru 3/15/2018 were signed by the DFO at the time COL Bryan S. Green, he was acting Chair/President as the board President was unable to attend the meeting.

Designated Federal Officer

Jeffrey R Eckstien Acting Director, Coastal and Hydraulics Laboratory

Committee Members	Start	End	Occupation	Member Designation
Colloton, Kimberly	07/25/2018	07/25/2021	USA, Division Commander, South Pacific Division	Regular Government Employee (RGE) Member
Elko Payne, Nicole	08/03/2016	08/02/2019	Elko Coastal Consulting, Inc.	Special Government Employee (SGE) Member
Feddersen, Falk	02/22/2016	02/21/2019	Scripps Institution of Oceanography, University of CA, San Diego	Special Government Employee (SGE) Member
Holland, Diana	07/18/2017	07/18/2020	USA, Division Commander, South Atlantic Division	Regular Government Employee (RGE) Member
Holman, Robert	11/16/2016	11/15/2019	Oregon State University, Corvallis, OR	Special Government Employee (SGE) Member
Milhorn, Jeffrey	07/19/2018	07/19/2021	USA, Division Commander, North Atlantic Division	Regular Government Employee (RGE) Member
Spellmon, Scott	06/04/2018	06/04/2021	USA, Deputy Commanding General for Civil and Emergency Operations	Regular Government Employee (RGE) Member

Number of Committee Members Listed: 7

Narrative Description

The Board on Coastal Engineering Research functions as an advisory board to the Chief of Engineers and was established by Public Law in 1963. It was originally the Beach Erosion Board established in 1930. The Board provides broad policy guidance and review of plans and fund requirements for the conduct of research and development of research projects in consonance with the needs of the coastal engineering field and the objectives of the Chief of Engineers. The Corps created the modern discipline of coastal engineering and remains the primary user in the United States to accomplish its mission. Research is essential for the Corps to accomplish its mission in an economically sound, environmentally correct and safe manner. The Corps conducts, or sponsors, most major coastal engineering research in the United States, and the BCER ensures both short- and long-term needs are met.

What are the most significant program outcomes associated with this committee?

Checked if Applies

Improvements to health or safety
Trust in government



Major policy changes	
Advance in scientific research	✓
Effective grant making	
Improved service delivery	✓
Increased customer satisfaction	✓
Implementation of laws or regulatory requirements	✓
Other	
Outcome Comments	
NA	
What are the cost savings associated with this committee?	
	Checked if Applies
None	
Unable to Determine	✓
Under \$100,000	
\$100,000 - \$500,000	
\$500,001 - \$1,000,000	
\$1,000,001 - \$5,000,000	
\$5,000,001 - \$10,000,000	
Over \$10,000,000	
Cost Savings Other	
Cost Savings Comments	
NA	
What is the approximate <u>Number</u> of recommendations prod	duced by this committee
for the life of the committee?	
126	

Number of Recommendations Comments

126 recommendations since FY 03; 8 in FY 11, 4 in FY 12; 9 in FY 13; 6 in FY 14; 7 in FY 15; 12 in FY 16; 15 in FY 17; 14 in FY 18. Recommendations for this committee are varied but relate to the conduct of research and development of research projects in consonance with the needs of the coastal engineering field and the objectives of the Chief of Engineers.

What is the approximate <u>Percentage</u> of these recommendations that have been or will be Fully implemented by the agency?

% of Recommendations Fully Implemented Comments

Recommendations implemented in support of the coastal engineering field and the objectives of the Chief of Engineers, usually in the form of specific research projects.

What is the approximate <u>Percentage</u> of these recommendations that have been or will be <u>Partially</u> implemented by the agency? 21%

% of Recommendations Partially Implemented Comments

Not all recommendations can be fully implemented due to time and budget constraints.

Does the agency provide the committee with feedback regarding actions taken to implement recommendations or advice offered?

Yes No Not Applicable

Agency Feedback Comments

Through reports on Actions Items at Board meeting and through Programs such as Section 227, the National Shoreline Erosion Control Demonstration Program, National Shoreline Management Study, Shore Protection Project performance Improvement, and Regional Sediment Management, and MORPHOS 3-D, and SUSTAIN.

What other actions has the agency taken as a result of the committee's advice or recommendation?

	Checked if Applies
Reorganized Priorities	
Reallocated resources	
Issued new regulation	
Proposed legislation	
Approved grants or other payments	
Other	

Action Comments

NA

Is the Committee engaged in the review of applications for grants?

No

Grant Review Comments

NA

How is access provided to the information for the Committee's documentation?

	Checked if Applies
Contact DFO	✓
Online Agency Web Site	
Online Committee Web Site	✓
Online GSA FACA Web Site	✓
Publications	✓
Other	

Access Comments

N/A